

Sturgeon Management Plan Advisory Committee Meeting

*Stevens Point, WI
December 4, 2018*

DNRSturgeonPlan@wisconsin.gov





Work with DNR staff to develop the framework for a new Sturgeon Plan

- Visit our website: <http://dnr.wi.gov/topic/Fishing/sturgeon/SturgeonManagementPlan.html>
- Send us comments to our dedicated email address:
DNRSturgeonPlan@wisconsin.gov
- Join the Gov Delivery list (by providing your email address on the sign up sheet today) or following the link on our website



Agenda


- Debrief October 29th meeting
- Discuss outline produced for Sections 3 and 4
- Section 5: Public outreach and participation
- Break out session #1
- Break
- Section 6: Emerging threats
- Break out session #2
- Section 7: Commercialization and scientific use
- Break out session # 3
- Next steps
- Adjourn



Population assessments (status/monitoring/evaluation)	Section 1	Population assessment and life history monitoring
Habitat loss/restoration/development	Section 2	Habitat protection and enhancement
Passage/fragmented habitat & populations/connectivity	Section 3	Propagation, reintroduction
Priority waters update/rehabilitation/restoration	Section 4	Regulations and harvest
Stocking genetic integrity/diversity	Section 5	Public outreach and participation
Over Exploitation	Section 6	Emerging threats
Regulations (knowledge/education/justification/assessment)	Section 7	Commercialization and scientific use
Fishing methods		
Angling opportunities		
Law Enforcement		
Encourage advocacy (more Sturgeon for Tomorrow Chapters)		
Promotion of resource use/hook & line participation		
Outreach/awareness/education		
Funding/allocation		
Tribal relations/inclusion/management		
Inter-agency cooperation (other states/tribal/federal/etc.)		
Contaminants/water quality/microplastics		
Fish diseases/quarantine facilities		
Climate change		
Invasives		
Bait harvest		
Aquaculture		



- Winnebago System Outreach
 - Winnebago Citizen Sturgeon Advisory Committee
 - Gov. Delivery notifications
 - Summary reports
 - Presentations at conservation club/civic organizations
 - Sturgeon for Tomorrow banquets
 - Media interviews
 - DNR website
 - Successful spearer letters
 - Spearer surveys
 - Public meetings



***22 new sturgeon
regulations and laws
since 1993***



**Winnebago Citizens
Sturgeon Advisory Committee
Founded 1992**

Sturgeon Spearing

Daily Sturgeon Tally Sheet

Station Number	Station	Juvenile Females (< 55 in.)	Adult Females (≥ 55 in.)
1	Waverly		
5	Stockbridge	0	4
6	Quinney		
8	Cal. Hbr. (Pipe)	0	4
10	Wendts	0	0
11	Jerry's		
12	Payne's	1	0
13	Critters	0	0
16	Indian Point	0	0
17	Boom Bay	0	0

Winnebago	Daily Total:	1	8
	Previous Total ('BAGO)	48	314
	Season Total:	49	322
	Harvest Cap:	344	855
No. Remaining to 90% Trigger		261	448

Upriver Lakes	Daily Total:		
	Previous Total (URL)	24	95
	Season Total:	24	95
	Harvest Cap:	88	95
No. Remaining to 90% Trigger		53	-10

Winnebago + Upriver Lakes	Daily Total:	1	8
	Previous Total:	72	409
	Season Total:	73	417
	Harvest Cap:	430	950
No. Remaining to 90% Trigger		314	438





Example Report

<https://dnr.wi.gov/topic/fishing/documents/sturgeon/SpearingSeasonSynopsis2016.pdf>



Photo by Beth Uppert

A dedicated sturgeon spearer peers through a sturgeon hole in hopes a fish will swim through.

STURGEON SPEARING:

The Good Ol' Days Are Right Now!

By Ryan Koenigs, Senior Fisheries Biologist,
Winnebago Sturgeon Biologist,
Wisconsin DNR, Oshkosh Fisheries Team

Well, it's getting to be that time of the year again, where winter's cold has us beaten down and many sportsmen and sportswomen are looking for something a little more exciting to get the blood flowing. Something more than the traditional ice fishing adventure. To many that void is filled by the annual sturgeon spearing season on the Winnebago Pool Lakes. In fact, it's safe to say that to many families and spearing groups, another sturgeon spearing season is met with anticipation rivaled only by the gun deer opener in Wisconsin. It's hard to think of another outdoor sport that is more entrenched in tradition and culture than sturgeon spearing. Most of the equipment necessary to pursue the sport (spears, decoys, gaff hooks, etc.) are homemade and have been passed down through the generations. As an avid spearer myself, I always revel in the excitement of a new season, and especially enjoy hearing the stories of seasons past when "cutting in." As the lead sturgeon biologist for the Wisconsin DNR, my experience on opening day is now entirely focused on managing the fishery, but I still

get that giddy feeling as another season draws near.

For those readers not familiar with the sport of sturgeon spearing, believe me, you are missing out. The sturgeon spear fishery starts the second Saturday in February, which happens to be Valentine's Day this year. There are fisheries on two different water bodies within the Winnebago System, both of which are managed by sex-specific harvest caps as well as an overarching system-wide harvest cap. The Lake Winnebago fishery is unlimited to how many licenses are sold before an October 31st deadline and spearsmen there experience an average success rate of 10-12%. The other season occurs on the Upriver Lakes (Buite des Morts, Winneconne, and Poygan) and operates under a lottery with 500 permits per year awarded to over 5,000 applicants. Spearmen on the Upriver Lakes experience a much higher success rate (50-60%) mostly due to shallower water. The sport of spearing itself involves peering into the water through a large hole (48 ft² maximum) cut in the ice with hopes of seeing a sturgeon swim through. Spearmen can "fish" from 7:00 AM to 1:00 PM each day the season is open, and all harvested fish must be presented at a registration station manned by DNR personnel by 2:00 PM of the same day the fish is harvested. Critical biological

data are collected from each fish and these data are used to help set harvest caps for subsequent spearing seasons. These stations also provide a great opportunity

for non-spearmen to come observe the registration process and learn more about the sport of sturgeon spearing and sturgeon biology. The season itself lasts until either the harvest caps are reached or for a maximum of 16 days.

Water clarity and ice conditions for travel are the two factors that have the largest impact on spearing success and, in turn, season length. Due to the early freeze up and cold winter conditions, spearmen experienced favorable spearing conditions for the 2014 season. The relatively clear water combined with more than 2' of ice led to a short 3-day season on the Upriver Lakes and a 6-day season on Lake Winnebago. The 3-day season on the Upriver Lakes was the 2nd shortest since 2007, while the 6-day season on Lake Winnebago was tied for the 3rd shortest since 2002. In total, there were 341 fish harvested during the season on the Upriver Lakes, meaning that 72.7% of license holders successfully harvested a fish during the lottery fishery. The Lake Winnebago fishery concluded with a total harvest of 1,513 fish (13.3% success rate), which was the largest harvest since 2004 (1,854 fish registered) and the 3rd highest since 2000.

The above average harvest in 2014 made for a successful season, but the number of large, trophy sized fish was the

most noteworthy story emerging from the season. A record 106 fish (95 from Winnebago and 11 from the Upriver Lakes) 100 pounds or larger were registered during the 2014 sturgeon spear fishery. The largest fish was John Skahan's 77.1", 161.0 pound female that was harvested on February 12. The trend of larger fish in the harvest has really emerged within the last decade and is indicative of a healthy, balanced population. Throughout the 1950-2009 seasons, there was an average of 0.83% of the Lake Winnebago harvest that were fish 100 pounds or larger. In comparison, the last five seasons (2010-2014) have boasted an average 6.02% of the harvest being fish tipping the scales at 100+ pounds. These big fish also dominate the record books, with 8 of the top 11 heaviest fish dating back to 1932 being harvested in the last five seasons! Further, only one fish in the top 11 was speared prior to 2004, and that was the famous 180 pound, 79" fish speared by Elroy Schroeder in 1953. The most noteworthy fish in recent seasons remains the current state record 212.2 pound, 84.2" fish that was harvested by Ronald Grishaber in 2010.

These large fish are not only showing up in harvests spanning the last decade, but have also become more frequent in spring assessments conducted at spawning sites located on the major Winnebago System tributaries. DNR staff now routinely capture fish 75" and larger. Four such trophy sized fish were captured in each year of 2011 and 2014, while nine were captured in both 2012 and 2013. The most prominent fish was the potential record breaking fish captured from the



- Additional sturgeon outreach
 - Harvest reports from H+L fisheries
 - Fishing forecast publication
 - Webpage for hook and line fisheries
 - Angler harvest letters
 - Tours and educational outreach at the Menominee Dam
 - Adopt a sturgeon at Besadny/Kewaunee River and Sturgeon Fest in Milwaukee
 - Press release and media contacts
 - Engage public in assessments
 - Sturgeon exhibit at Wild Rose hatchery



Lake Sturgeon:

Wisconsin's Hook and Line Angler Opportunities

By Wisconsin DNR Biologists,
Collaborated by Ryan Koenigs

Lake sturgeon are the largest and longest lived fish species in the Great Lakes drainage and were historically abundant throughout their native range of the Great Lakes, Mississippi River and Hudson Bay drainages. However, overharvest, migration barriers, pollution, and habitat destruction have resulted in a significant decline in fish populations throughout their range and extirpation of many populations. Wisconsin is right in the heart of the lake sturgeon's range and remains home to some of the species most successful management programs (visit www.dnr.wi.gov to learn more). In fact, Wisconsin boasts vibrant recreational hook and line fisheries and a spear fishery for lake sturgeon in many locations, while most populations in other states are protected from harvest to aid recovery programs.

Many of Wisconsin's largest rivers have provided hook and line harvest opportunities for decades, but management strategies and regulations have evolved as angling pressures increased. As a result of high harvests under past 50" minimum length limits (MLL), the WDNR implemented a more restrictive 60" MLL in 2007. This regulation reduced harvest to at or below sustainable levels, but still provides recreational angling opportunities.

Anglers looking to target lake sturgeon during any of the open seasons must possess a Wisconsin fishing license. Anglers interested in harvesting a lake sturgeon must purchase a harvest tag (\$20 for residents, \$50 for non-residents) that allows for the harvest of a single fish per season. All harvested

fish must be registered at a designated registration station no later than 6 PM of the day after the fish was caught.

So you might be asking, how do I go about pursuing a lake sturgeon with rod and reel? Well first, make sure you have suitable equipment including heavy tackle such as high pound test line and a good sturdy rod and reel. As for bait, most anglers find the best success with a large gob of nightcrawlers, but cutbait can be effective as well. Typically, these baits are presented along the bottom in either deep holes or areas with swift current, making sure to use an adequate amount of weight to hold the bait in place. Some of the best fall fishing is often found in the tailraces below dams, as fish are drawn to current.

Below are summaries of some of the lake sturgeon populations that provide hook and line angling opportunities for this prehistoric fish. So make plans to get out on the water this fall and wet a line in quest of the fish of a lifetime!

Green Bay Tributaries

The major Green Bay tributaries (Menominee, Peshtigo, Oconto and Lower Fox) were known spawning and nursery sites for lake sturgeon and historically sustained the largest population of lake sturgeon in the Lake Michigan drainage. However, overharvest and habitat loss severely reduced the number of lake sturgeon in Green Bay and these rivers. Fortunately, the Menominee River had a sustainable sturgeon

fishery and was opened to hook and line fishing in 1946. Wisconsin DNR jointly manages this boundary water with the state of Michigan, and the two states have conducted regular assessments on the river since the 1960s.

Presently, these waters are managed in 4 sections related to landlocked populations created by several hydroelectric dams. These areas are known as Sturgeon Falls (70 river miles from Green Bay and the historic natural barrier for upstream migration from Green Bay), White Rapids, Grand Rapids and the lower river below the first dam. The Sturgeon Falls section is the only stocked area and has received fish raised at Wisconsin's Wild Rose hatchery since 1982. Tagging has demonstrated little (1-5%) downstream movement within the river and dams block upstream movement. Recent research demonstrated that 18% of the harvested sturgeon from the Lower Menominee River were genetically identified to other Lake Michigan populations, and additional research has indicated movement of adult sturgeon between the 4 major rivers. An abundant population of lake sturgeon in the lower Menominee River has encouraged several fish managers to work with Eagle Creek Renewable Energies to build fish passage around the lower two dams of the Menominee. To date, over 100 sturgeon have been moved upstream to areas of the river with large areas of underutilized spawning and juvenile rearing habitat.

Upper Chippewa and Flambeau Rivers

The Upper Chippewa and Flambeau rivers, along with their major tributaries, have consistently sustained lake sturgeon populations that offer anglers both catch-and-release action and opportunity to harvest large fish. In 2015, hook-and-line anglers kept six sturgeon from the Flambeau and one from the Chippewa, while in 2014 they harvested seven in the Flambeau, four in the Chippewa, and one in the Jump River. The largest fish was 68 inches and 83 pounds in 2015, and 70 inches and 70.5 pounds in 2014.

WDNR Fishery crews conduct assessments to monitor population status and assure that anglers take no more than 5% of adults annually. In 2015, gillnets were used to capture, tag and release 34 fish (40-60") in the Flambeau River and 26 fish (50-72") from the East Fork Chippewa River. Recapturing these tagged fish in later surveys or harvests will yield important information on growth, movement and harvest.

Gillnet surveys in the Turtle-Flambeau Flowage captured some of the area's largest and oldest fish, including an 83.2 inch fish with 39-inch girth in 2015. However, young fish have been conspicuously absent from surveys for many years. To rehabilitate the remnant sturgeon population in the headwaters of the Flambeau River, WDNR collects eggs from the native population and rears those fish to 8-inch fingerlings before being stocked into the Manitowish in fall. The hook and line sturgeon season is closed to angling upstream of the Turtle-Flambeau Dam, and recommended operational changes at an upstream dam would allow sturgeon to use their traditional spawning grounds.

A nature-like fishway, built in 2011, allows fish to swim around the only dam on the East Fork Chippewa River. Submerged antennas near the fishway record the movements

of 94 sturgeon carrying electronic tags. Six tagged sturgeon passed through the fishway in 2014, but none were detected in 2015 and 2016. The fishway operates six weeks in spring and two weeks in fall.

Lower Chippewa River

The lake sturgeon hook and line fishery on the 109 miles of the Lower Chippewa River has remained popular among anglers, even as regulations have become more conservative over time. The Lower Chippewa River is segmented by six impoundments (Lake Holcombe, Cornell Flowage, Old Abe Flowage, Lake Wissota, Chippewa Falls Flowage and Dells Pond) over 49 river miles prior to flowing freely for 60 miles to the Mississippi River. Since the establishment of the 60 inch MLL in 2007, 91 lake sturgeon have been harvested over nine seasons with the highest percentage of fish caught downstream of the Dells Dam (45%). The fisheries at Dells Pond (28%), Lake Holcombe (11%), and Chippewa Falls Flowage (11%) have also contributed to the harvest, while the remaining three impoundments only comprised 5% of the harvest. Trophy caliber fish have been caught throughout the river system with the largest sturgeon (82 inches and 155 pounds) being registered in 2010.



Above: DNR staff, Joseph Gerbyshak, Matt Simonson, and Jason Meacham collect biological data from a lake sturgeon netted from the Chippewa River during the spring spawning run.

Left: Evan Iniojadowski with a 73-inch lake sturgeon from the Turtle Flambeau Flowage.

DNR fisheries staff use gillnets and dip nets to assess the Lower Chippewa River lake sturgeon population when flow conditions provide safe working conditions. Captured fish are measured and weighed and all untagged fish are tagged with internal PIT tags and external Floy tags to evaluate movement and growth. Typically, the larger fish observed in surveys are around 65 inches and 60 to 80 pounds, while the average fish is in the low-mid 50 inch range and weighs around 30 pounds. Gillnetting surveys downstream of the Dells Pond Dam typically yield 20-50 fish, and tagging data indicates that fish from various populations, St. Croix and



Break Out Session #1: Public outreach and participation

7.0 Public Input and Involvement

- | | | |
|-------------------|-----|---|
| Objectives | 7.1 | Maintain proactive public involvement in sturgeon management |
| | 7.2 | Develop and implement statewide public education program for sturgeon and sturgeon management |

Tactics:

Break





Section 5: Emerging threats

Contaminants/water quality/microplastics

Fish diseases/quarantine facilities

Climate change

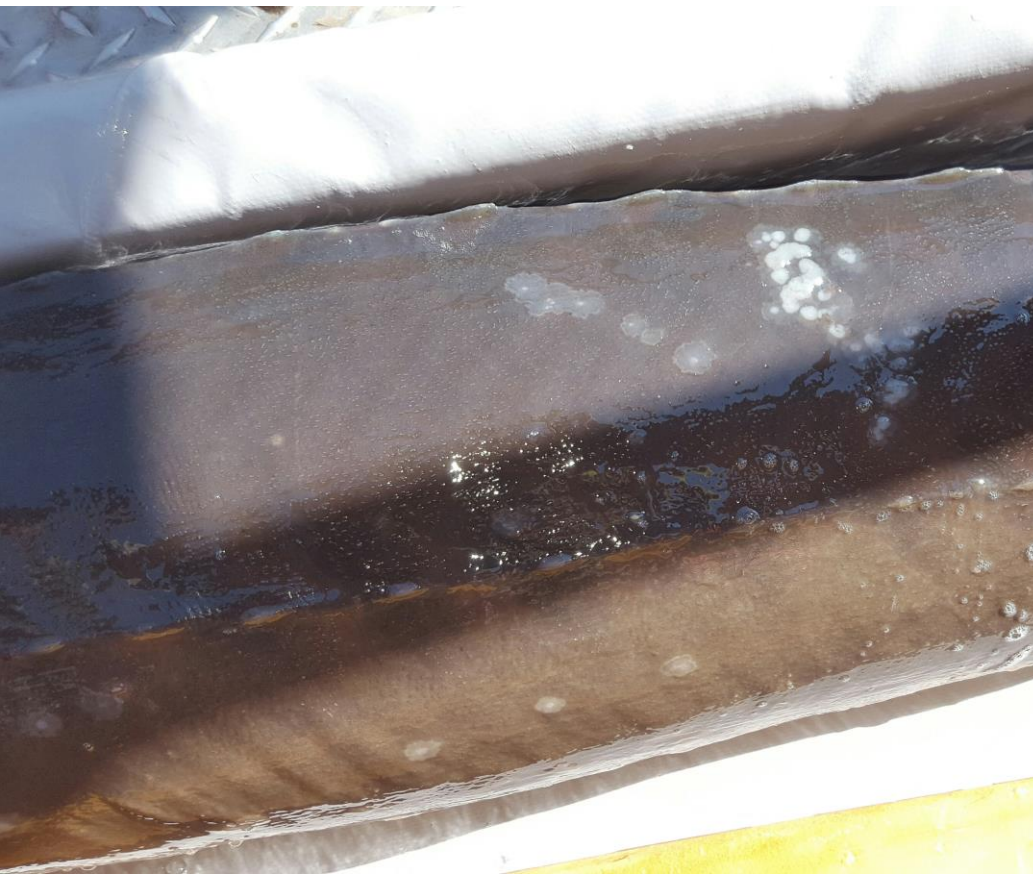
Invasives

Bait harvest

Fish Health (VHS)



Fish Health (AciHV)





Recap Break Out Session #2: Emerging threats

Contaminants/water quality/microplastics

Fish diseases/quarantine facilities

Climate change

Invasives

Bait harvest



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Invasives		
Bait harvest		
Aquaculture		



Break Out Session #3: Commercialization and private use

8.0 Commercialization, Privatization, and Scientific Use of Sturgeon Resources

- Objectives**
- 8.1 Minimize/eliminate potential problems and threats from aquaculture operations and scientific users.
 - 8.2 Prohibit the importation and distribution of all sturgeon species as a hobby fish for aquaria.
 - 8.3 Establish a cooperative partnership agreement between the Department of Natural Resources, USFWS, Department of Agriculture, Trade, and Consumer Protection (DATCP), academia, tribes, other agencies, and the commercial aquaculture industry for the propagation of lake sturgeon, hereafter referred to as the Wisconsin Lake Sturgeon Aquaculture Agreement (WLSAA) using established technical criteria (from Objective 3.4) to assure the production of the highest quality product.

Tactics:



Timeline

- **February-March 2018:** Sturgeon Management Plan public meetings
 - Eight meetings statewide
- **July-August 2018:** Form Advisory Committee
- **August 2018:** Advisory Committee Meeting No. 1
- **September-December 2018:** Gather input from Advisory Committee through monthly meetings and draft management plan
- **March 2019-July 2019:** Solicit comments from the Advisory Committee and finalize draft plan
- **July 2019-September 2019:** Draft plan comment period
- **September 2019-March 2020:** Incorporate input, finalize plan, present plan to the FMPT and Natural Resources Board



Adjourn

